

EENS Job Risk Assessment

Name(s) of Risk Team Members: E. Hoey, L. Milian, T. Roberts, S. Springston, L. Bowerman, G. Senum, K. Lewis, J. Boccio, P. Carr & A. Piper (facilitators)	Point Value → Parameter ↓	1	2	3	4	5
Job Title: Electrical Work Job Number or Job Identifier: EENS-JRA-005 JRA Date:	Frequency (B)	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Job Description: Work on BNL Range A, B, and C electrical equipment	Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Training Procedures List (Optional): Applicable Standard Operating Procedures:	Likelihood (D)	Very Unlikely	Unlikely	Possible	Probable	Multiple
Approved by: Date: Rev. #: Draft						
Stressors (if applicable, please list all) Outdoor Work (damp env.),	Reason for Revision (if applicable):				Comments:	

Activity	Hazard	Control(s)	Before Additional Controls						Control(s) Added to Reduce Risk	After Additional Controls						% Risk Reduction
			Stressor	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		Stressors	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	
Operation of disconnects and circuit breakers with the box cover on, (Range A,B,C)	Electrocution	Cover securely in place, NRTL approved equipment design Training, , appropriate PPE (NFPA 70E compliant), proper equipment grounding,	N	1	4	5	1	20								
	Electrical Shock		N	1	4	3	1	12								
	Reflex injury		N	1	4	3	1	12								
	Arc flash burn		N	1	4	4	1	16								
Verify de-energized	Electrocution	Verified de-energized source, Training,	N	1	3	5	2	30								

EENS Job Risk Assessment

Activity	Hazard	Control(s)	Before Additional Controls						Control(s) Added to Reduce Risk	After Additional Controls						% Risk Reduction
			Stressor	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		Stressors	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	
state after removing panel/cover	Electrical Shock	qualified/authorized, proper grounding, approved equipment design, standards and procedures, proper CAT meter, work planning as required, 2 person rule appropriate PPE (NFPA 70E compliant), LOTO	N	1	3	4	3	36								
	Reflex injury		N	1	3	4	2	24								
	Arc flash burn		N	1	3	4	1	12								
Troubleshooting, testing Low Voltage, Low Current <50 VDC electronic equipment (Range A)	Electric Shock	Training, qualified, proper grounding, approved equipment design, standards and procedures, labeling	N	1	3	1	3	9								
	Reflex injury		N	1	3	2	1	6								
Troubleshooting, testing Low Voltage, High Current electronic equipment (Range B, C)	Electrocution	, 2 person rule, proper grounding, approved equipment design, appropriate PPE (NFPA 70E compliant), Training, qualified/authorized, proper grounding, approved equipment design, standards and procedures, proper CAT meter, work planning as required, labels signs & postings, clear work area, Inspections , LOTO	N	1	2	5	1	10								
	Electrical Shock		N	1	2	1	1	2								
	Reflex injury		N	1	2	2	1	4								
	Arc flash burn		N	1	2	3	1	6								
Troubleshooting, testing circuits (Range B)	Electrocution	Training/qualified, proper grounding, approved equipment design, NFPA 70E compliant PPE, standards and procedures, proper meter, Permit for Working On or Near Energized Parts, labels signs & postings, LOTO	N	1	2	5	1	10								
	Electrical Shock		N	1	2	3	2	12								
	Arc flash burn		N	1	2	2	1	4								
	Reflex injury		N	1	2	3	2	12								
Troubleshooting, testing circuits (Range C)	Electrocution	Training, proper grounding, approved equipment design, NFPA 70E compliant PPE, standards and procedures, proper meter, work planning, labels signs & postings Permit for Working On or Near Energized Parts, LOTO	N	2	2	5	1	20								
	Electrical Shock		N	2	2	4	2	32								
	Arc flash burn		N	1	2	4	1	8								
	Reflex injury		N	1	2	4	2	16								
Trouble shooting and testing high voltage, low current power supplies (example: ion gauges, vacuum gauges)	Electrocution	Training, qualified/authorized, LOTO, proper grounding, approved equipment design, proper cables and connectors, labels and signs, LOTO, work planning, labels signs & postings Permit for Working On or Near Energized Parts, NFPA 70E compliant PPE	N	1	2	5	1	10								
	Electrical Shock		N	1	2	4	1	8								
	Reflex injury		N	1	2	2	1	4								

EENS Job Risk Assessment

Activity	Hazard	Control(s)	Before Additional Controls						Control(s) Added to Reduce Risk	After Additional Controls						% Risk Reduction
			Stressor	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD		Stressors	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	
De-energizing capacitors in circuitry presumed de-energized	Electrical Shock	Equipment design, training, PPE, labeling/posting, grounding of capacitors in storage,	N	1	1	3	1	3								
	Arc flash burn		N	1	1	4	1	4								
	Reflex injury		N	1	1	2	1	2								
Testing & troubleshooting equipment in damp locations (Ranges A & B)	Electrocution	Training/qualified, proper grounding, approved equipment design, NFPA 70E compliant PPE, standards and procedures, proper meter, Permit for Working On or Near Energized Parts, labels signs & postings, GFCI protection, proper grounding,	Y	1	2	5	2	20								
	Electrical Shock		Y	1	2	3	2	12								
	Arc flash burn		Y	1	2	2	1	4								
	Reflex injury	(above plus) clear work area, Inspections	N	1	2	3	2	12								

*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable